



Published weekly for employees of Lawrence Livermore National Laboratory

Friday, February 28, 2003

Vol. 28, No. 8



**FROM THE
DIRECTOR'S
OFFICE**

Bill Goldstein

**Balancing innovation
with disciplined execution**

Director's note: Senior management recently unveiled a set of values for the Laboratory. Each value will be discussed in a Director's Office column. Today, Bill Goldstein, AD for Physics & Advanced Technologies, looks at the fourth value — Balancing innovation with disciplined execution.

I arrived at LLNL to work on the X-ray laser. The program was at its peak; X-ray lasing had just been demonstrated at Nova; the most complex underground tests ever imagined were taking place. At Nova and in Nevada, the Lab would deliver astonishing “firsts,” perform solid science and raise tantalizing questions. It was Livermore at its envelope-pushing best.

As a member of the Nuclear Test Program, I also had a ring-side seat to the meticulous planning and diligent engineering that went into successfully testing and realizing the “Flash Gordon” concepts of X-ray laser designers. The tension that must have existed in the juxtaposition of concepts that could have come straight out of a science fiction paperback with their disciplined execution by a seasoned, conservative engineering team, was a striking feature even to a recent recruit. But I’ve learned that maintaining a balance — in fact, a direct connection — between

See **DIRECTOR'S OFFICE**, page 8

Darling testifies in Congress

The House Energy and Commerce Committee's Subcommittee on Oversight and Investigations this week held the first of two expected hearings on the business and administrative operations of Los Alamos National Laboratory. Bruce Darling, UC senior vice president for university affairs and interim vice president for laboratory management, represented the University of California at the hearing.

Darling told the committee that UC is aggressively implementing the changes necessary to strengthen financial controls and improve the governance of the laboratory. He summarized the lead-

ership changes, internal and external audits, revamped governance structures, and improved audit and accountability processes that UC has implemented at Los Alamos.

Committee members asked a range of questions, largely focusing on the purchases of various items at the laboratory, management responses to employees who questioned those purchases, and UC's actions to rectify the problems. In response, Darling stated his intention to pursue “vigorously and immediately” any new information from the

See **TESTIMONY**, page 7

**Former Secretary
of State Schultz
visits NIF**

Former Secretary of State George Schultz (right), along with renowned physicist Sid Drell (center), visited the Lab for a full day on Tuesday. NIF project director Ed Moses escorted the two through the NIF laser bay. Schultz had only one word after the tour: “Awesome.”

JACQUELINE MCBRIDE/IBIS



**Plant Engineering launches
construction project and
traffic advisory updates**

The current and projected construction activity at the Laboratory is at its highest level in the last decade.

This is good news in that it reflects the vitality of Laboratory programs. However, construction projects may temporarily inconvenience employees near project sites. Plant Engineering is launching a new feature in this edition of *Newsline* designed to keep employees

**Construction update
— See page 5**

See **CONSTRUCTION**, page 8

Max and Raber inducted into Hall of Fame

By **Anne M. Stark**

NEWSLINE STAFF WRITER

Laboratory scientists Claire Max and Ellen Raber are two of nine awardees to be inducted into the Alameda County Women's Hall of Fame.

The Alameda County Board of Supervisors, the Alameda County Health Care Foundation and the Commission on the Status of Women recognized Max, a Berkeley resident, and Raber, a Livermore resident, for their contributions in the fields of science and environment, respectively. They will be honored March 8 during the 10th Annual Women's Hall of Fame Awards ceremony.

Max, an astrophysicist with LLNL's Institute of Geophysics and Planetary Physics and associate direc-

tor of the National Science Foundation's Center for Adaptive Optics based at UC Santa Cruz, specializes in the use of adaptive optics to minimize the blurring effects of turbulence in the Earth's atmosphere so that astronomers can view celestial objects through ground-based telescopes as clearly as if the telescopes were space-based.

The system uses light from a relatively bright star to measure the atmospheric distortions and to correct for them, producing images with unprecedented detail and resolution.

In the early 1980s, at about the same time as French researchers, Max proposed using a sodium laser guide star attached to large astronomical telescopes to better

See **FAME**, page 7



**Governor's
rep at LLNL**

— Page 2



**Science review
for cadets**

— Page 3





LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar
on page 4

Friday
28

CAMS director John Knezovich will discuss “**Applications of Accelerator Mass Spectrometry to Science in the National Interest,**” at 3:30 p.m. in Bldg. 235, Gold Room. Coffee and cookies will be served at 3:20 p.m. Contact: Tom Felter, 2-8012 or Rebecca Browning, 2-5500.

...

LLESA is currently taking sign ups for the next **specialty class** session beginning March 5 – April 9. Class size is limited so reserve your spot now in these popular classes, taught by world class champions Kurt Senser and Patty Vo. Contact: the LLESA office, 2-9403 or jones169@llnl.gov.

Tuesday
4

Looking for some lunchtime entertainment? LLNL’s **Microcentury Toastmasters** will hold its annual international and impromptu speaking competition at noon in the Bldg. 361 auditorium. Anyone is welcome to attend.

...

Today is the last day to place an order for **Daffodil Days**, the annual fund-raiser for the American Cancer society. A bunch of freshly cut daffodils (10 stems) is \$10; a vase is available for an additional \$8. Orders will be delivered on Monday, March 24. To find a representative near you, see the Daffodil Days ad on page 4.

...

A representative from **Fidelity Investments** will be on-site to meet with employees today and Wednesday and March 18-19. Fidelity Investments are available to UC’s 403(b) participants in addition to the UC-managed investment funds. To schedule an appointment, call Fidelity at 1-800-642-7131. When calling, be sure to specify you are an LLNL employee.



B Division’s **spring book sale** will return March 17-21, 11:30 a.m. to 1:30 p.m., in Bldg. 132, room 1200 (Q or L-cleared access only). Used books, videos, CDs and books-on-tape are needed; all proceeds are used to buy Christmas gifts for needy children in Livermore, Oakland, Concord and San Joaquin County. Collection boxes are available in the lobby of Bldg. 132; Bldg. 663; and Bldg. 253, room 1531, or call Lynn Groves, 2-1684.

Judges needed for science fair

The seventh annual Tri-Valley Science and Engineering Fair needs enthusiastic and energetic scientists and engineers to help judge student projects on Thursday, April 3.

“One of the main highlights for the students is having the opportunity to discuss their research with professionals,” said fair director Karen Kiernan-Rodriguez.

Judges are needed from 7:30 a.m. to 1:30 p.m. on Thursday, April 3, at the Blackhawk Museum in Danville. To volunteer, contact Connie Ruvalcaba-Olson at 4-4640 or ruvalcabaolson1@llnl.gov.

Governor’s office briefed on tech transfer



DON GONZALEZ/IBIS

From left: Ron Cochran, Lab executive officer, with Cris Campana of Gov. Gray Davis’ office. Campana was briefed on the Laboratory’s technology transfer program. Campana met with ADs Wayne Shotts of Lab Homeland Security Organization and Bert Weinstein of BBRP, Dana Christensen of Energy and Environment, and Pat Grant of the Forensic Science Center during his half-day visit.

Proposals for Lab-UC collaborations sought

Laboratory researchers are encouraged to contact their university collaborators and submit proposals for funding by the University Relations Program (URP). URP funds collaborations between LLNL researchers and faculty from campuses of the University of California and other universities that have the potential for unique collaborations.

Major objectives of the University Collaborative Research Program (UCRP) component of the URP are to encourage original work that has the

potential to significantly impact research in areas of LLNL missions and to train future Laboratory employees and faculty members in these areas.

The UCRP web site (<http://www.llnl.gov/urp/ucrp>) provides the necessary information about how to submit proposals to one of the six URP Institutes for FY04 funding up to \$40,000. The deadline is April 15. For additional information, contact Harry Radousky at radousky1@llnl.gov.

IN MEMORIAM

Wilma McGurn

Services will be held at noon today for Wilma McGurn at Jess Spencer Mortuary in Castro Valley. McGurn, of Castro Valley, died peacefully at home Monday surrounded by family members. She was 83.

McGurn started work at LLNL in 1957 in the L-6 section of Test Division known as L-Division for Bob Petrie. She worked there for two years and then moved to the Division Office and worked for Chuck Violet and then Jim Carothers. She then went to work in the Associate Director’s Office with Jerry Johnson and the Plowshare program. In 1965 she worked with Harry Reynolds in Test Program. McGurn was the first Dialogue Coordinator in 1975 for the Dialogue Program.

She was past president of LLL Woman’s Association. She also started the archival project with Jim Carothers. After retiring in 1982, McGurn volunteered at the Visitor’s Center and enjoyed traveling with her husband to Europe and Hawaii. Their last trip was to Cuba in 2001.

McGurn was preceded in death by her husband of 57 years, Edward McGurn, who passed away in November 2002. Survivors include her children, Philip McGurn of Brentwood and Maryanne Nisson of New York; and grandchildren, Eddie and Elizabeth McGurn, and Reed Nisson.

Kathleen “Betty” Ehlers

A memorial service has been held for Kathleen “Betty” Ehlers of Castro Valley, who died on Feb. 4. She was 84.

Ehlers started working at the Laboratory in 1960. When she retired in 1980, she was a division/departments administrator in Computation.

She was a member of Faith Lutheran Church in Castro Valley for 51 years, and was a leading member and founder of Solo Channel. She enjoyed crocheting and crossword puzzles.

Ehlers is survived by sons, Jim Ehlers and daughter-in-law Susan Larkin of Albion, and Walter Ehlers and daughter-in-law Donna of Livermore; a sister, Marie Culwell of Castro Valley; and five grandchildren and one great-granddaughter. She was preceded in death by her husband of 33 years, Howard.

The family has requested memorial donations in Kathleen “Betty” Ehlers name to Faith Lutheran Church, Memorial Fund, 20080 Redwood Road, Castro Valley, CA 94546.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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NEWS YOU CAN USE

Lab science and technology on parade for military cadets

By Elizabeth Campos Rajs

NEWSLINE STAFF WRITER

More than 120 ROTC cadets and their faculty representatives visited the Lab recently as part of the annual ROTC Day hosted by the National Security Office and the Science & Technology Education Program.

Brigadier Generals Robert Smolen and Ronald Haeckel participated in a panel discussion with the students and accompanied them on their Lab tours throughout the day.

The event concluded with an open house in the West Cafeteria featuring 19 Lab researchers displaying their technologies. It was an opportunity for the students to learn more about such technologies as laser peening, micro-components for homeland security and bio defense technology as well as a chance for the students to chat one-on-one with research scientists.

“Livermore, Sandia and Los Alamos are absolutely national assets. The science they perform are enablers for defense,” Brigadier Gen. Bob Smolen said.

Events like ROTC Day are a great way to expose young people to the opportunities available at the national laboratories, he said.

“It’s a good thing for them to come in. If they end up leaving the military and come to the Lab to work, we haven’t lost them. They are still doing national service,” Smolen said.

The ROTC students came from campuses throughout California, including UCLA, UC Riverside, UC Irvine, UC Santa Barbara as well as a number of CSU campuses and Stanford.

“As future officers in the U.S. military, this may be their only opportunity to learn about defense and homeland security at a national laboratory. Hopefully, they’ll remember they’ve been here, our expertise and what we can do,” said Barry Goldman, who organizes ROTC Day. “A smaller subset may be interested in a summer internship here.”

Christine Skinner and Melissa Corley, who attend Stanford but are assigned to an ROTC detachment at San Jose State University, visited the Laboratory for the first time last week.

“It’s valuable to come and hear from people who work here about what it’s like” Skinner said, adding that she is in the process of making decisions about the direction of her Air Force career.

Allan Tulloch, commander of the Navy Jr. ROTC at Monterey High School, said he learned a lot about the Lab during the day-long tour.

“I thought it was fantastic. I was familiar with the nuclear side, but didn’t realize the spectrum of research here is as broad as it is,” Tulloch said. “I only brought three students, but the ones I did bring will be good ambassadors to spread the word when they get back. I suspect next year, I will be bringing

more students.”

Tabber Watts, who attends Cal Poly San Luis Obispo, said he found the day very useful and interesting.

“It is rounding my knowledge of what’s here,” he said.

June Spurlock, who brought 20 students from Turlock High School’s Navy Jr. ROTC, said the tours and briefings her students attended were highly impressive.

“I hope they keep it in the back of their minds when they go to college,” she said.

This year, Goldman said he has received an increased number of ROTC applicants for summer internships. “I have leveraged funding in support of ROTC summer interns. Program managers who are interested in taking on



FRANK NUNEZ/IBIS

Armando Alcaraz of the Lab’s Forensic Science Center discusses the latest detection technologies with ROTC students who visited the Lab.

a summer student are welcome to call me,” he said, adding people should call as soon as possible. He can be reached at 2-5177 or goldman1@llnl.gov.

Join your co-workers in fighting cancer

Purchase a bunch of freshly cut daffodils (10 stems) for \$10.
A vase is available for an additional \$8.

Daffodil Days are here again. Each spring, the Laboratory participates in this benefit for the American Cancer Society and is one of the top fund-raisers in California. Employees donated more than \$20,000 in last year’s campaign. Daffodils are on sale through March 4 and will be delivered on Monday, March 24. See the list below for a representative near you.

Money from this American Cancer Society-sponsored event will go to research, education and patient services.



The deadline for an LLNL order is **Tuesday, March 4**.
Delivery will be on **Monday, March 24**.

Check the list below for the LLNL Daffodil Days volunteer nearest you who is accepting orders.

Name	Bldg.	Rm.	L-code	Phone	Name	Bldg.	Rm.	L-code	Phone
Barnes, Tracey	111	501R	L-001	3-9060	Olund, Cindy	131	2075	L153	2-3668
Bell, Christine	1403	1101	L-203	3-9447	Pierce, Sue	2679	1269	L-386	3-1094
Berkich, Tracy	071	1020	L-102	2-8246	Purpura, Gloria	1878	104	L-278	2-7281
Breznik, Joanne	616	100	L-697	4-4101	Quick, Bonnie	451	1041	L-561	2-6510
Conrad, Janet	113	4048	L-073	2-7561	Rutan, Dena	231	2454	L-344	3-0696
Delage, Lori	511	151C	L-607	2-6941	Sarlund, Nancy	261	1508	L-387	2-5072
Dewolf, Chris	543	1277	L-638	3-8348	Sefcik, Cookie	121	1013	L-051	3-2242
Emmirsch, Shirley	551E	1090A	L-654	2-6206	Shuler, Jean	113	1030	L-067	3-1909
Fread, Lanette	411	1422	L-518	2-9288	Springer, Frankie	111	332	L-016	3-6192
Grandfield, Charlene	5475	1359	L-633	3-1779	Sorensen, Nanette	2925	101	L-397	2-9670
Harrison, Jaquie	481	2253A	L-493	2-2823	Stone, Sharon	663	1000	L-723	2-7459
Jess, Rhonda	3703	1245	L-441	4-3057	Thomas, Karma	2775	1019	L-395	2-5300
Jimenez, Irene	481	2121	L-490	3-1273	Thompson, Michelle	871	124	L-871	3-1180
Johnson, Chris	1325	1377	L-171	2-2670	Twiss, Carol	571/671	1138	L-725	2-9395
Lindsay, Karen	321A	2100	L-337	3-5028	Watt, Maggie	332	1138	L-360	3-6003
Mahler, Florann	211	136	L-414	2-9173	Weyburn, Sandy	551E	221E	L-657	2-0840
Mickels, Sharon	170	2110	L103	3-9279	Williams, Anita	132N	2254	L-170	2-4550
Miller, Margie	314	1216	L-432	3-0265	Yazzie, Darlene	132S	2322	L-182	3-7846
Nelson-Lee, Jennifer	5426	1009	L-621	2-5750	Ybarra, Corinne	482	2158	L466	3-9501



NEWS YOU CAN USE

Former LANL director to speak at the Lab

The next Director's Distinguished Lecturer Series talk will be given by Harold Agnew, former director of Los Alamos National Laboratory, on March 11 at 3 p.m. in the Bldg. 123 auditorium. He will discuss how the twin paths of LLNL and Los Alamos have been intertwined since 1952.

Agnew, who served as LANL director from 1970-79, will reflect on how Livermore and Los Alamos have grown up together, how their strengths and cultures vary, and how their combined talents — and the value of peer review — have enriched the nation.

Director Michael Anastasio invites all employees to attend this talk.

Agnew's career in defense began when as a young college student, he relocated to the University of Chicago to join the Manhattan Project, working with Enrico Fermi. He was present on Dec. 2, 1942, when the first self-sustaining nuclear chain reaction was initiated and controlled.

He joined Los Alamos in 1943 to work on the



Harold Agnew

atomic bomb and was aboard the plane that bombed Hiroshima. His were the only photographs of the event.

In the '50s, Agnew was a manager at LANL when the opening of a second laboratory at Livermore was debated in Los Alamos and Washington. He took a leave of absence from Los Alamos in 1961 to become science adviser to the NATO supreme allied commander in Europe. He returned to Los Alamos in 1964, where he was named head of the Weapons Physics Division.

In 1970, he succeeded long-time Los Alamos Director Norris Bradbury. As director, Agnew focused his tenure on broadening the scope of Los Alamos, strengthening the theoretical physics program, improving computer resources and developing a better budgeting system.

He left Los Alamos in 1979 and became head of General Dynamics in San Diego.

Agnew won the E.O. Lawrence award in 1966 and the Fermi Award in 1978.

Today he is adjunct professor at UC San Diego and serves on the UC National Security Panel.

Applications available for physical science fellowships

The National Physical Science Consortium (NPSC) Fellowships support graduate student research in many areas of interest to the Lab.

Cost of student support to an LLNL principal investigator/directorate is \$22,000/year for six years plus two years of standard summer support for the student to work at LLNL with the PI.

NPSC fellowships are open to all U.S. citizens, and provide a strong pool of outstanding entering graduate students. Selection of fellows by all participating companies/national labs will take place in a football-style draft on March 7.

For more information and to obtain passwords for viewing the student applications on-line, contact Harry Radousky, 2-4478, or Brenda Foster, 3-8257, in the University Relations Program office.

Did you know?
Dial 123 to check your voicemail on-site.

Technical Meeting Calendar

Friday
28

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"PAPI and Dynamic Performance Analysis Technology," by Phil Mucci, University of Tennessee at Knoxville. 10 a.m., Bldg. 551W, room 1400 (uncleared area). Contacts: Jeffrey Vetter (CASC) 4-6284, or Leslie Bills, 3-8927.

CHEMISTRY & MATERIALS SCIENCE/MATERIALS SCIENCE AND TECHNOLOGY

"Applications of Accelerator Mass Spectrometry to Science in the National Interest," by John P. Knezovich, Center for Accelerator Mass Spectrometry. 3:30 p.m., Bldg. 235, Gold Room. Coffee and cookies will be served at 3:20 p.m. Contact: Tom Felter, 2-8012, or Rebecca Browning, 2-5500.

PHYSICS AND ADVANCED TECHNOLOGIES/IGPP

"White Caps on White Dwarfs," by Robert Rosner, University of Chicago. Noon, Bldg. 319, room 205. Contact: Michael Gregg, 3-8946, or Sandra Maldonado, 3-0621.

Tuesday
4

PHYSICS AND ADVANCED TECHNOLOGIES

"Source Fitting in Relativistic Heavy Ion Collisions," by Michael D. Heffner. 1:30 p.m., Bldg. 543 (uncleared area). Contact: Ron Soltz, 3-2647 or soltz1@llnl.gov.

Wednesday
5

CENTER FOR APPLIED SCIENTIFIC COMPUTING

"Elementary Reaction to Power Plants: How Detailed Should Combustion Be Modeled," by Frank Behrendt, Berlin University of Technology. 10 a.m., Bldg. 451, room 1025 (uncleared area). Contacts: Pete Eltgroth (CASC), 2-4096, or Leslie Bills, 3-8927.

Thursday
6

(NOTE DATE CHANGE FROM PREVIOUS ANNOUNCEMENTS.)

PHYSICS & ADVANCED TECHNOLOGIES

"Pure Penguin B-meson Decays in BaBar: A Window to Physics Beyond the Standard Model," by Alexandre Telnov, Lawrence Berkeley National Laboratory. 1:30 p.m., Bldg. 211, room 227 (uncleared area). Contacts: Doug Wright, 3-2347, or Pat Smith, 2-0920.

Friday
7

CHEMISTRY & MATERIAL SCIENCE/MATERIALS SCIENCE & TECHNOLOGY

"Biological and Materials Science Applications of Surface-Enhanced Raman Spectroscopy," by Chad E. Talley. 3:30 p.m., Bldg. 235, Gold Room. Coffee and cookies will be served at 3:20 p.m. Contact: Tom Felter, 2-8012, or Rebecca Browning, 2-5500.

PHYSICS AND ADVANCED TECHNOLOGIES

"The Evolution of Normal Galaxies: Masses, Star Formation and Mergers," by Christopher J. Conselice, Caltech. Noon, Bldg. 319, room 205 (uncleared area). Contacts: Michael Gregg, 3-8946, or Sandra Maldonado, 3-0621.

Monday
10

PHYSICS & ADVANCED TECHNOLOGIES

"Nonlinear Landau Damping to Multiple-Wave Final States (of the Type Observed in a Recent Laser-Plasma Experiment)" by John J. Dornier, University of Virginia. 3 p.m., Bldg. 543, room 2074 (uncleared area). Contacts: Bruce Cohen, 2-9823, or Judith Knecht, 2-5487.

Tuesday
11

PHYSICS & ADVANCED TECHNOLOGIES

"Jet Tomography of High Density Nuclear Matter at RHIC," by Jennifer Klay, Lawrence Berkeley National Laboratory. 1:30 p.m., Bldg. 211, room 227

(uncleared area). Contacts: Mike Heffner, 2-6762, or Pat Smith, 2-0920.

EARTH SCIENCE

"Statistical Inversion of Electrical Resistivity Data Using the Stochastic Engine," by Abelardo Ramirez, Applied Geophysics Group. 10 a.m., Trailer 1456, room 1010 (uncleared area). Contact: Arleen Allsup, 2-2305.

Wednesday
12

PHYSICS & ADVANCED TECHNOLOGIES

"Asynchronous Simulation of High-Explosive Detonations," by Adrian Lew, CalTech. 10:30 a.m., Bldg. 211, room 227 (uncleared area). Contact: Robert Rudd, 2-4292, or Donna Vercelli, 2-0976.

Thursday
13

EARTH SCIENCE

"The Stochastic Engine: Application to 'Soft' National Security Problems," by Virginia Johnson, Applied Geophysics Group. 10 a.m., Trailer 1456, room 1010 (uncleared area). Contact: Arleen Allsup 2-2305

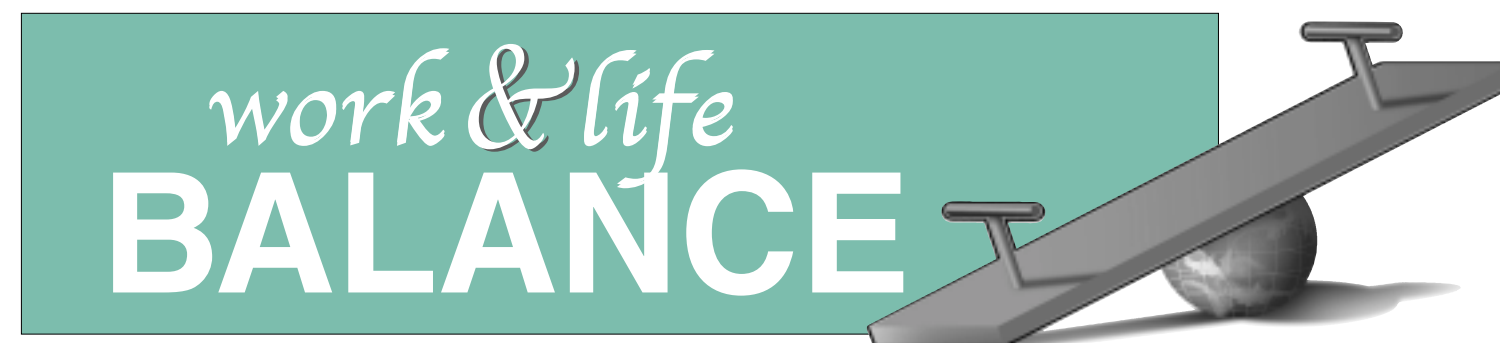
Friday
14

CHEMISTRY & MATERIALS SCIENCE

"Modeling Anomalous Dislocation Multiplication: A Coupled Atomistic-Dislocation Dynamics Simulation Of Frank-Read Source Operation In FCC Aluminum," by Maurice de Koninck. 3:30 p.m., Bldg. 235, Gold Room. Coffee and cookies will be served at 3:20 p.m. Contact: Tom Felter, 2-8012, or Rebecca Browning, 2-5500.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.



A monthly supplement provided to employees as part of Survey Action Team Initiatives.

March 2003

Crafting a new generation



Frank Nunez/IBIS

The Lab's new class of apprentices (pictured above) were welcomed at a special ceremony Wednesday. Diane Ravnik, who oversees apprentice programs statewide, was a guest speaker.

By Elizabeth Campos Rajs
Newsline staff writer

A special welcoming ceremony was held Wednesday to honor the Laboratory's 26 new apprentices in Engineering and Plant Engineering.

Lab leaders and representatives from the state of California and the Chabot/Las Positas Community College District were on hand to congratulate the new employees and wish them well as they begin their four-year training program.

"You're about to embark on a wonderful journey," said Ed Helkenn, Plant Engineering Department head. He and his wife are both graduates of apprenticeship programs, he added. "The program will serve you and the Laboratory well into the future."

Glenn Mara, deputy director for Opera-

tions, said he's pleased the experienced crafts at Laboratory will have an opportunity to share their skills with the next generation.

"I'm excited about this investment in the future Laboratory workforce," he said after the ceremony. "The Lab is taking an active role in bringing in the next generation. These apprentices went through a highly competitive selection process and they represent the 'best and the brightest'."

Diane Ravnik, deputy chief of California's Division of Apprenticeship Standards, was also on hand to welcome and congratulate the new class of apprentices.

APPRENTICE, See WORK LIFE page 4



Reaching for fitness and well being through yoga

By Gorgiana Alonzo

Read a few magazines or watch the talk shows these days and yoga is mentioned, demonstrated, and otherwise plugged, particularly during the last five years. Why all the interest in a 2,000-year-old system of stretches, twists, and breathing? Well, I can tell you why I do yoga.

For me, the question is like asking why I breathe. It's part of the fabric of my life and has been for nearly 40 years. I was introduced to yoga through a TV program in the early sixties, called Richard Hittleman's Yoga. This was during the period of Jack La Lane and other fitness types exploring the relatively new medium of television as another means to teach people their system of exercise. Hittleman had a half-hour show early in the morning. My



PHOTO COURTESY OF GORGIANA ALONZO

Gorgiana Alonzo (far right) assists Sandy Love and Debbie Wojtowicz with trikonasana, or triangle pose.

mother would lay down a blanket on the hardwood floor of our L.A. apartment and do the poses, and I would follow along.

What I learned from that half-hour helped me with my softball, basketball, volleyball and track during junior high and high school.

I couldn't find a Hittleman teacher during college, but I did find teachers who had been trained by Iyengar. B.K.S. Iyengar introduced a style of yoga to the West that emphasizes precise alignment of the body integrated with the breath. I liked the alignment and the way of integrating the breath as I moved. I also liked the use of blankets, blocks, bolsters, and other props that helped me get into the pose. I've stuck with Iyengar teachers ever since, even though I've tried many other styles over the years.

Talk to people who practice yoga and you'll get many different reasons why.

YOGA, See WORK LIFE page 4



March 2003

AFTER HOURS AND in between

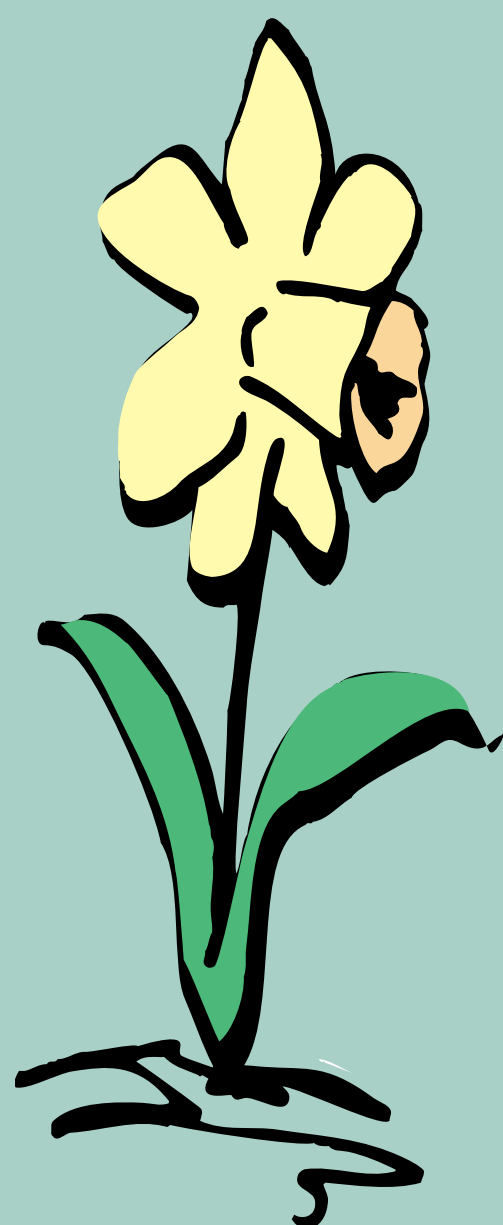
Daffodil Days Are Blooming Again

Daffodils are on sale through March 4 and will be delivered on

Monday, March 24.

A bunch of freshly cut daffodils (10 stems) is \$10; a vase is available for an additional \$8.

Each spring, the Laboratory participates in this benefit for the American Cancer Society and is one of the top fund-raisers in California. For more information about the fund-raiser, contact Germaine Clark, 2-1135.



3 MONDAY

Build up your skills in communication, influencing people, and managing conflict. This 2-day workshop — Professional Development Seminar for Administrative Specialists (ED7472) — will teach these skills and much more. It takes place Monday and Tuesday. Contact: Employee and Organization Development, 2-4842.

LLESA will help you get into the swing of things through West Coast Swing and Cha Cha dance lessons, which begin Monday. Sign up in Bldg. 415.

4 TUESDAY

A Fidelity Investments representative can help you see the light in your financial future. A representative will be onsite to meet with employees March 4-5 and 18-19.

Call 1-800-642-7131 to set up an appointment. When calling, be sure to specify you are an LLNL employee.



10 MONDAY



"You're in Charge!"

Find out more by attending this EODD class, offered March 10, 19, 24. No enrollment needed. Contact: Marissa Mertes, 2-4842.

11 TUESDAY 7 Habits

Learn about the "7-Habits" that will change your life. The ED7384 orientation will be held at the Trailer 1879 Training Center, 11 a.m. to noon for the class to be held beginning March 20. No enrollment needed. Contact: Marissa Mertes, 2-4842.

12 WEDNESDAY

Schedule a massage through LLESA by calling 424-5321.

13 THURSDAY

Temptation abounds at the Karat's Jewellery sale, 11 a.m. to 3 p.m., in Bldg. 415.

A Costco representative is also available at the Time Zone, 10 a.m. to 2 p.m.



17 MONDAY

St. Patrick's Day



This annual effort provides gifts to needy children at Christmas.

Enjoy your pick o' books at the B Division Book Sale. This week-long sale, March 17-21, takes place from 11:30 a.m. to 1:30 p.m. in Bldg. 132N, room 1200.

Most Books - \$1 or 6/\$5; some are less.
Kids' Books - \$.25 each or 5/\$1.
CDs/Videos - \$3 each.

Contact Lynn Groves, 2-1684.

25 TUESDAY

Join in the fun! Today's Parenting Class starts at noon in Bldg. 671, room 2000.



31 MONDAY

"Self Management of Stress" takes place today from 8:30 a.m. to 4:30 p.m. in the Trailer 1879 Training Center. No enrollment needed. Contact: Marissa Mertes, 2-4842.

19 WEDNESDAY

Lunchtime Learning Series presents
"Overcoming Overwhelm: Managing Stress Well."
Noon, Bldg. 571, room 2301.
Pre-registration is required.
Contact: giovannoni1@llnl.gov



SPOTLIGHT ON SCIENCE

Every 90 minutes the International Space Station (ISS) orbits high above planet Earth while the astronauts and cosmonauts on-board continue to construct the largest, most sophisticated and powerful spacecraft ever built.

Tammy Jernigan will describe her Space Shuttle mission to the ISS and discuss the revolutionary life and micro-gravity scientific research currently being conducted in orbit.

This community lecture will take place March 27 at 7 p.m. at Livermore High School, 600 Maple St., Livermore. Admission is free.

The LLESA Administration Office will be closed March 27.



Tammy Jernigan, pictured above, is a former NASA astronaut and veteran of five space shuttle missions. She currently serves as Assistant Associate Director for Special Projects in Physics and Advanced Technologies.

YOGA

Continued from Work Life , page 1

For me, I can personally testify to yoga keeping me flexible in all my activities. I’ve stayed loose and open, whether I’ve played golf, volleyball or hiked. I’ve injured myself a few times over the years, broken a leg or a toe or a finger, but I’ve never had physical therapy. Even recovering from two abdominal surgeries has been easier because of my yoga practice.

There’s a lot of talk about how yoga helps with stress. This is absolutely true. If I’m having a hard time at work, I keep my breathing deep and long. Sitting for hours staring at a computer, no matter how much you like the project, takes its toll on the body. Yoga reverses the strain on the back, neck, hips and arms.

Yoga keeps me grounded physically and mentally. Yoga grounds me spiritually. It’s part

APPRENTICE

Continued from Work Life , page 1

“After an elaborate selection process, the Lab has really gotten the best and the brightest,” she said. “In the state, there are some 66,000 apprentices. This program is really a star, both in terms of the starting level of the apprentices and the commitment the Lab makes in funding training. The program at the Lab is highly respected throughout the state. We are delighted you are starting up again.”

The Laboratory’s apprenticeship program began in 1956, but was halted in the early ‘90s when there was a slow-down in business. Many of the Lab’s employees and managers in Plant Engineering are graduates of the comprehensive program.

The 2001 employee survey proved to be the catalyst for bringing the program back. A Survey Action Team was assigned to address issues identified by 800- and 900-series employees and one of the team’s major recommendations was to bring back the apprentice program.

Lab management agreed and made a commitment to fund the program for four years, said Steve Hunt, associate director for Laboratory Services, who co-chaired the 800/900 Survey Action Team with Jens Mahler, acting associate director for Engineering.

TRAINING

Continued from Work Life , page 1

tory is the Web-based course HS5220-W (Electrical Safety) sponsored by the Hazards Control Safety Education and Training group. The course is designed to refresh employees’ understanding of electrical safety requirements and policy at the Laboratory. In addition to being schooled in the basics of electricity and LLNL safe working practices, attendees learn what causes accidents and how respond to them.

Students are taught that unsafe acts are the leading causes of electrical accidents and that the main reasons for unsafe actions is that we don’t know better or else foolishly ignore proper procedure. In conducting their work at the Laboratory, students are taught to avoid the following unsafe acts.

- Failure to de-energize, lockout, and tagout hazards during maintenance, repair or inspections.
- Use of defective and unsafe tools.
- Use of tools or equipment too close to

LLESA offers yoga classes in new studio

Through its Fit for Business program, the Lab’s Employee Services Association (LLESA) now offers two types of yoga classes — gentle yoga and power yoga — on site.

The building that formerly housed the Lab store has been converted into an exercise studio and renamed the Ranier room. Yoga classes are offered five times a week as part of the Fit For Business Program.

LLESA describes gentle yoga as “Iyengar-style Hatha yoga using mind/body awareness, relaxation and breathing techniques to help relieve

of my daily meditation. Yoga is the prayer my body does while the rest of me is praying.

I’ve taught a noon yoga class at work since 1995. I’ve become a much better yogini because of it. It’s part of my dharma (that’s

neck and back stress. Props are used to increase comfort, reduce strain and allow everyone to take part in the class no matter what their age, fitness, or experience level.”

Power yoga is described by LLESA as specifically designed to achieve greater levels of strength, flexibility and stress relief. Emphasis is placed on breathing techniques, heat building, strength challenges and stretching.”

For more information about these classes or to sign up, contact LLESA at 2-9402. ♦

another story). When I retire in a few years, I plan on opening my own studio. In my life, yoga is like breathing. I have to do it.

Gorgiana Alonzo is a managing editor in NAI. ♦

mechanic for the last five years, but jumped at the chance to work at the Lab as an apprentice.

“It’s wonderful. I’m learning a lot,” Nelson said. “I’m really grateful for the opportunity.”

John Anderson, a pipe fitter apprentice, said he had always wanted to work at the Lab and was pleased to be part of the apprenticeship program.

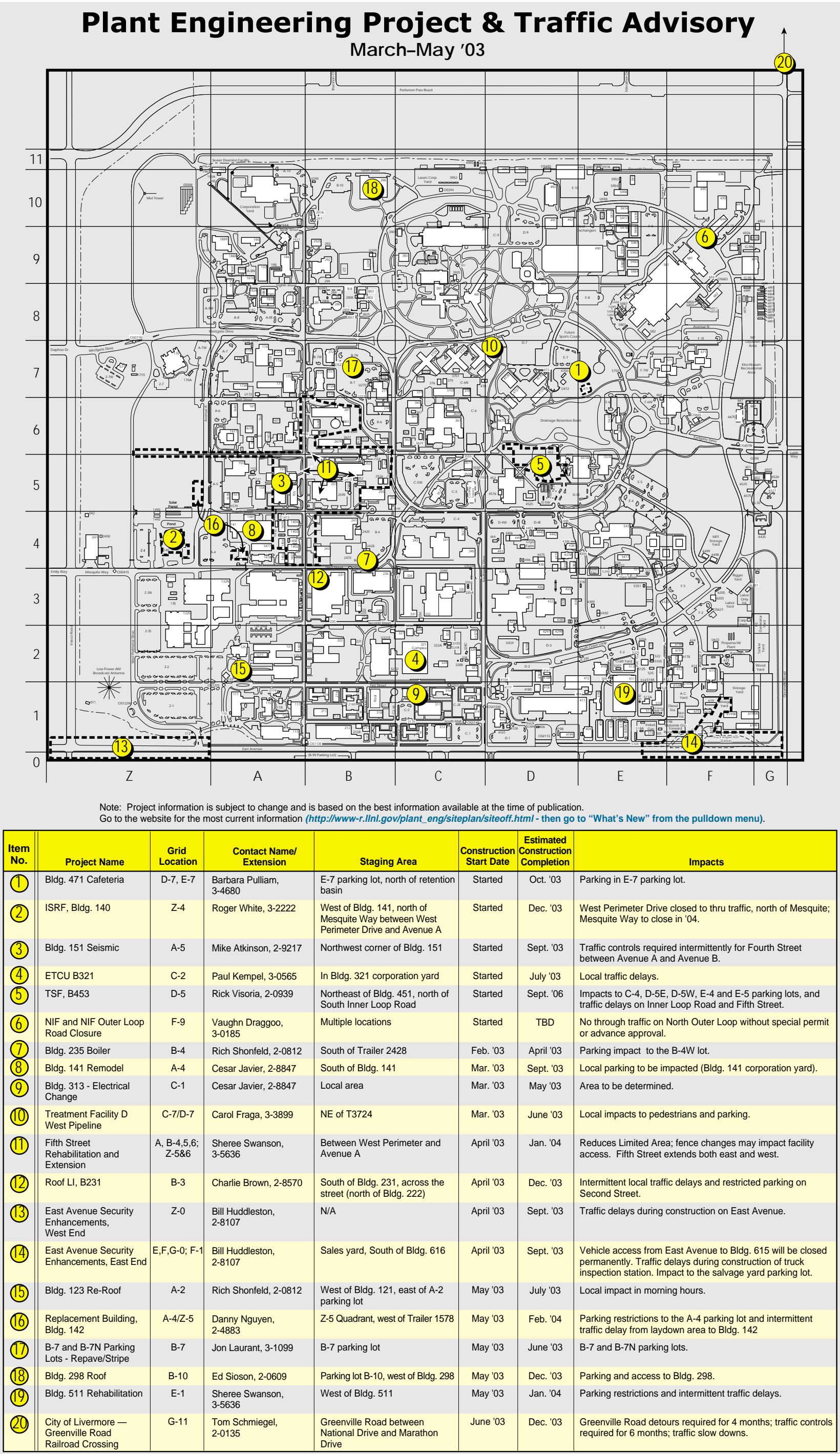
“Everyone I work with is great. Everything is new and interesting,” Anderson said. “I’m doing a lot of observing right now.”

As part of the program, the apprentices will receive hands-on training as well as classroom instruction over the course of the next four years. Many of the apprentices are currently taking math classes on Tuesdays and Thursdays as part of their curriculum.

The program requires a steady progression through eight 1,000-hour training periods and the apprentices will be required to master all competency-based training and education objectives for each training period.

“By the time they are journeyman in four years, they will have good knowledge of the Laboratory, our safety processes and the complexity of Lab maintenance,” said Clark Bergmen, superintendent for the Electric, Sheet Metal, Pipe and Weld shops. “When you home grow people, the quality and commitment are there.” ♦

- Light Bulbs: Use bulbs that are the right wattage for the light fixtures. Tighten bulbs (loose ones may overheat).
 - Space Heaters: Turn off and unplug when not in use. Keep space heaters at least three-feet away from combustible materials.
 - Halogen Floor Lamps: Halogen lamps operate at higher temperatures than standard light bulbs. Do not use in children’s bedrooms or playrooms. Turn off when you leave a room. Do not locate a halogen floor lamp where it could contact combustible materials. Retrofit upward facing lamps (torchiers) with compact fluorescent lamps if possible.
 - Appliances: Have an appliance repaired or replaced if it repeatedly blows a fuse, trips a circuit breaker, or gives you a shock.
 - Entertainment/Computer Equipment: Use surge protectors that bear the seal of a Nationally Recognized Testing Laboratory, such as Underwriters Laboratories (UL).
- For more workplace or home electrical safety information, contact Keith Gershon in Hazards Control at 3-9560. ♦





CLASSIFIED ADS

See complete classified ad listings at
<https://www.ais.llnl.gov/newsline/ads/>

AUTOMOBILES

Honda 1970 CT70H Gold, only 1200 ORIGINAL miles. Rebuilt carb,tune-up, and much much more. COLLECTIBLE!! \$1200 OBO 925-855-8368

2001 - Honda CRV Good Condition \$15,000.00 209-823-3490
1992 - Honda Civic, \$2500.00/OBO 925-449-3228

1998 - Ford Mustang, silver, spoiler, V-6, CD stereo, auto-Trans., tinted power windows, keyless alarm entry, air, great condition, \$6,500 obo. 925-964-0534

2001 - Ford Taurus SES, excellent condition, maroon red with gray interior, automatic, AM/FM/Cassette, 54000 miles, \$10000 OBO, Call Lois evenings/week-ends 925-248-7864

1990 - Cadillac Coupe de Ville, white w/gold packg., navy leather int., AM/FM cassette, A/C, clean body, 170K miles.\$1900/OBO. 209-833-8306

1998 - 1998 - Acura Integra GS, 4 cyl, 5 sp.leather upholstery, cd, alloy wheels, moon roof, loaded, forest green, 59K miles, xint cond, \$10,000. 209-830-8300

2000 - Ford F150 Lighting, Custom Sound system, Epic chrome rims, suede leather setting, very low miles EXCELLENT condition \$32,000 925-679-8809

1995 - 1995 Chevy Lumina. Clean, no dents, good tires, runs great,73k miles. Need to sell \$4300, OBO. 925-447-8138

1993 - Mazda MX-6 Sports Coupe. 5-speed, sunroof, good condition. \$3500/O. 925-485-1988

1969 - Mustang. 351W engine. Restoration started. Need some to finish. 925-455-6310

1995 - Ford Mustang Convertible GT-5.0,V8,leather interior,new stereo,excellent condition. 925-373-7452

1996 - Ford Mustang Cobra, 50K miles, black/black 1ltr., immaculate cond., \$13,500. 925-351-6192

1999 - Dodge caravan. Great condition, 53K, A/cyl, A/C, New tires, Runs great. Great gas mileage, \$8,000.00 obo. Just bought new Durango. 925-240-7374

1929 - 1929 Mercedes Benz Gazzelli kit car. Never assembled, cream color body with brown fenders. Plus V.W. parts. \$600.00 OBO 925-443-6315

1992 - GMC Suburban Rebuilt engine & Tranny Newer interior and exterior Fully Loaded tow package, flwmaster dual exhaust alarm much more \$9900.00 MUST SELL!! 925-245-1560

1995 - Toyota Camry, Midnight blue, new brakes, newish tires, AT/AC/PS/PL/PW 117.6Kmls. \$5500 OBO 925-443-8191

1993 - XLT Ford Explorer Exc. Cond. 75K miles,new tires and brakes. Motivated seller \$6400 925-577-9058

2000 - Honda Odyssey LX 4door,loaded,V6 3.5L VETC,Auto,AC,all power options,White color.\$21000.00 510-886-1418

AUTOMOBILE ACCESSORIES

Chevy/GMC 3/4 Ton Truck Rims 4 for \$125 Came Off 1999 Truck Box Scraper \$200 Two Bottom Plow \$200.5 Foot 3pt Disc \$400. 209-601-1171

Pioneer TS-A6940 coaxial two-way speakers, 6x9. 150 209-858-4664

Large Wilton machinist vise \$50 Also very old steel blacksmith vise \$45 925-443-8191

BICYCLES

Boys age 6-9 bike, 20 inch frame, Gary Fischer Shortcut, great condition, \$75. 925-924-0233

BOATS

1994 Sea Doo XP jet ski w/shorelander trailer excel condno accidents includes life vests gas cans anchor,cover \$2500 OBO 408-243-7156

WANTED: Small 12v Electric Trolling Motor. 925-455-1730

1972 Boston Whaler Montauk, 115H.P. Johnson, 1990 Shorelander galv trlr, VHF, Lowrance sonar/gps, extras, good condition, \$6200/OBO 209-931-6836

97 Sanger V-210 W/290 H-315 EFI, stereo

with remote and C.D. player, Tandem trailer, Purple and White. Like new cond. with apx. 300 hrs. \$25,500 510-772-1882

ELECTRONIC EQUIPMENT

Scan and print photos! HP842c Color Injet printer, \$40. obo. UMAX2100U scanner \$30 obo. Both excellent cond. w/ Software, manuals. 925-292-4676

Polk Audio RT-400 Floor speakers. Great condition. Some scratches on sides and back. Covers in great shape. The best speakers! \$200.00 pair obo. 925-240-7374

For Sale: HP 48G series calculator and manual. Like new, hardly used. \$75 OBO 925-828-9804

Two Nokia cell phones, perfect working condition, with chargers and 1 car adapter. \$20 925-516-9510

Electronic dashboard & cabinet, Grand Master Series, 8 player, 19 games. Paid \$90. \$50. 925-648-0671

GIVEAWAY

Otrons Attache with case. Antique portable computer looking for a good home 925-443-8789

King size water bed and frame: free with pick up 925-337-1088

Free Rock polishing equipment, Flat surface plate, Powder tumbler, 2 rubber drums, 10 inch diameter Wet Diamond saw, Numerous polishing compounds. 925-449-4379

Three pairs of child's corrective shoes in perfect condition for pediatric rehabilitation use. 925-449-6334

very loving puppy needs loving home, small doberman mix, 3-4 mos. old, w/ lots of supplies. 925-443-9928

Free to good home. 7mo pitbull female, brendal & white. Energetic, playful and loving. Crate trained. 209-521-5062

HOUSEHOLD

Mini refrigerator, new 6 mo. ago. Black, great space saver, plenty of storage space inside. Runs excellent. Moved and no longer need it. \$100. 925-989-1159

Large IKEA pine and chrome desk. \$125.00 925-829-3068

MOVING SALE! Matching Dresser, Armoire, Desk set \$250. Also available separately! 925-600-1561

Queen Size Futon with Pad, Great Condition! \$350.00 925-519-0578/925-373-0751

Kenmore Washer & Dryer - Full Size, Like New, Used 4 mos. Fully Loaded. \$600.00 and U-Haul from storage in Pleasanton. 925-519-0578, 925-519-0578

Four diningroom chairs. Dark wood w/ cloth seats. www.cs.wisc.edu/~smethg/sale/, \$15 each. Note 1 of 4 chairs has armrests. 925-251-1571

Washer & Dryer, \$450.00 for the pair. 209-822-2271

Two Marble double sink tops, 21x92 beige swirl & 21x82 gold swirl. white cabinets too. \$45 each. Solid douglas fur double entry door- \$45. 925-938-4136

Queen size White Iron and Brass Bed (Headboard, footboard and rails-No mattress) Good condition. \$50.00 925-373-4888

GE Dishwasher 1 yr old: Full size, portable. Black face, butcher block top. Moving MUST SELL \$275.00 OBO 925-321-1618

7ft leather sofa and leather recline chair with Ottoman: both in dark brown, very good condition, attractive modern style, \$500 or BO. 925-376-0638

Gently used infant to 3T clothing for boys. 3 bins full. Name brands. Items starting at \$.50 each. Must see. 209-833-8306

GARAGE SALE - Saturday, March 15, 9:00am-1:00pm at 1714 Dune Point Way, Discovery Bay. Multiple families...everything must go! 925-516-0353

King sz dark oak waterbed complete. 8 drawer capt. pedestal, large headboard w/light, mirror, & cabinets Very good condition. \$600 OBO. Willie 209-985-2890

Queen Size Platform/Caption Bed. 6 drawers. Pine wood w/cherrywood finish. 4 months old. Paid \$800+; will sacrifice for \$500.00. 209-612-5164

Massage Table - professional quality, face cradle, sheets, carrying bag. Like-new.

\$600 new, asking \$100. 925-462-5202

TODDLER BED w/ mattress. Solid wood, natural finish, excellent condition, \$100. 925-454-0877

Bl fold louvered wood doors. Unfinished like new 24 Inch by 30 inch \$20.00 each obo 925-846-4864

Desk, computer. Black/light oak. Solid: lots of storage. Beautiful condition. Paid \$600; asking \$400 OBO 925-447-8820

Dutailer glider rocker for sale. Lite color wood and beige fabric. Great condition. New it cost \$325. Asking \$75. 925-449-0947

Lexus stainless steel coffee commute mug. Brand new. Paid \$20. \$10. 925-648-0671

Sofa & Loveseat, off white \$200. Wood Day Bed w/mattress \$75. Slip Covers for Sofa & Loveseat \$100 for both. 209-832-3002

7ft. Blue sofa with fold down tray and recliners on both ends. Good Condition. \$75.00 925-449-8757

Oak computer desk, L-shaped w/ keyboard drawer & 5 drawers. V nice unit \$75. Also Solid maple student desk, needs refinishing and drawer repair. \$10 925-443-8191

MISCELLANEOUS

Three adult lift tickets to Alpine Meadows Ski Resort. Good any day/weekend/holiday for 2002/2003 ski season. Regularly \$56/ea. sell for \$45/ea. 510-219-4851

MOVING!! Dresser \$40; Computer desk \$30; Couch/loveseat \$100; TV stand \$20; Full boxspring \$30; Twin mattress set \$40. U-haul! Prices Negotiable! 925-600-1561

GARAGE SALE! SATURDAY MARCH 1ST ONLY!! 8:30am Computers/Kids Stuff/Entertainment Centers/Household/Misc.Items. 925-321-1484

Artwork. Two framed pictures of dragons. \$20 each. 925-251-1571

Double Jogging Stroller. Baby Trend Brand. Like new \$100. Firm. Twin/double tandem style stroller (blue plaid) \$40 925-373-4888

GARAGE SALE - Saturday, March 15, 9:00am-1:00pm at 1714 Dune Point Way, Discovery Bay. Multiple families...everything must go! 925-516-0353

Graco Double Stroller, excel. cond. \$50; Reebok 3-wheel, off-road/jogging stroller, excel. cond. \$40. 925-447-1917

Craftsman yard blower, vac and gutter clean out kit \$50.00 obo used very little. Car seat like new \$25.00 925-846-4864

Mori Lee Wedding Dress. Size 6. White. Strapless with embroidered wrap. \$500 925-858-9628

Generac Generator, 15KW, Model #04188/04189 Stationary unit, Runs on Natural gas or LP, New/Still in shipping crate, \$4K OBO 209-838-1490

TIG welder Miller Model 330A. New torch, New pedal,argon bottle(full), coolant pump, cart, assorted tungsten, cups, tips etc. \$950 925-443-8191

25 Used 12ft 3-legged wooden picking or pruning ladders in good condition. \$20.00 each. ext2-5612 or 209-892-6993

MOTORCYCLES

2000 - Yamaha WR 426 new tires, graphics,front fork seals. New rear suspension and much much more. MUST SEE!! \$3,750 OBO. 925-855-8368

1996 - Harley Davidson FLHT Electra Glide Standard, Vivid Black, 13K miles, Nice Ride... \$14K OBO 209-838-1490

MUSIC INSTRUMENTS

Hand carved Bruenn upright piano. Flying top. Comes with velvet topped stool. \$600 negotiable. Buyer must arrange for professional transport. 925-997-4047

Accordion, la Melodiosa, full size w/strap and case, good condition.\$135 obo 925-634-2701

Casio CTK-518 keyboard with adapter. Great shape. Small dent over speaker cover, does not effect function. Tons of features. MIDI. \$80.00 obo. 925-240-7374

PETS & SUPPLIES

Western pleasure show saddle. One of the last saddles made by Rowell. Berry pattern silver. Matching breast plate. \$2500 or best offer. 925-449-1128

Parakeets different colors \$20 ea 925-776-5612

Large Bird Cage, 18 inches x 36 inches x 60 inches high. For indoors, lucite walls, steel tray, fully equipped. Includes one finch. \$75 obo 925-447-1186

Free to good home. Pure-bred Persian Female: Blue-Cream, 6 years old. Spayed. Sweet kitty, needs love. 925-858-9628

Penguin 170 Blowwheel external filter and Perfecto fluorescent light hood for 20 or 25 gallon aquariums, 12X24 inches. \$15 each. 925-455-6684

Free to good home. 7mo female pitbull, Brendal & white. Playful, loving personality, and energetic. Crate trained. 209-521-5062

RECREATION EQUIPMENT

Golf Clubs - Evolution DC-1, graphite shafts, irons 3-9, pw, sw, Woods 1, 3, 5. Clubs only. Barely used. Asking \$300.00 Call 925-447-2068

Deluxe trampoline in excellent condition. One person. \$40.00 or best offer. 925-449-1128

Snow chains 14 inch, used only once - \$25. Please call 510-701-1625

Baby Jogger jogging stroller, excel cond. New \$250 sell for \$125; Burley bike trailer, new \$350, sell for \$125. 925-447-1917

Youth golf clubs, 5-9 year old, US Kids five club set, blue shafts, \$50. 925-924-0233

Everlast boxing speed bag and backboard ready to mount on wall v sturdy unit \$45 925-443-8191

RIDESHARING

Express your commute, call 2-RIDE for more information or visit <http://www.r.llnl.gov/tsmp>.

San Francisco/Oakland - Riders wanted for new vanpool. 9/80 7:45-5:30 work schedule. Contact 4-5204 or 415-206-1075

Modesto - Vanpool needs one rider regular hours. Leaves Modesto 6:40 am, leaves Lab - 4:45 pm. Meet Carpenter and Kansas. Cost \$115.00/mo. 209-576-0217, ext. 2-7459

Orinda - Lamorinda carpool seeks 4th rider/driver. Lab hours 8:10am-5pm. Meets near Highway 24 and St. Stephens. 925-253-0498, ext. 2-9823

Oakland/Montclair - Riders wanted for new vanpool. 5/40 8:15-5:00 work schedule. Contact ext. 2-4227, or 510-530-1289, ext. 2-9831

SERVICES

CONCRETE: Custom, stamped, colored, foundations, retaining walls & more. Over 20 years experience. Lic#787092-B. 408-806-9816

TUTORING in high school and college math and chemistry. 925-443-2095

Child Care Provider. Full-time student studying early childhood development, great with children. Available weekday evenings. 925-447-5455

Distinctive black & white portrait photography - Vintage Hollywood Glamour and Film Noir Style - actors & performing artist. 925-449-0107

General Contractor Lic#790293 Additions, Kitchens, Baths, Decks and Fences. Free price quotes. 925-961-1301

Wedding Photography: over 20 yrs exp. You keep the negatives. Medium format cameras used. Reasonable. 925-829-1474

SHARED HOUSING

Tracy - - Furnished room with bath, kitchen/laundry privileges, no smoking, \$475 plus utilities, deposit. 209-832-3331

Livermore - 3bd/3ba w/2Cgarage/storage, pool table, 7min to lab, pool/jacuzzi,We split rent/util/place(\$900 ea. rent), pics avail. 925-449-0603

Livermore - - Master bdrm for rent, private bath, full priv, freeway access, short trip to Lab. BART & Las Positas, N/S, no pets, \$595 & 1/2 util. 925-200-9976

East Bay - Room wanted for single parent nursing student + 1 child. Quiet, clean, non smoker. Can pay \$500/month + provide housekeeping and childcare 510-489-9633

Livemore - Large room over garage, shared kitchen and bath. Nonsmoking. Country living next to regional park. 20 minutes to town. Bring your horse. 925-

FAME

Continued from page 1

view virtually any star in the galaxy. The laser guide star system is used at UC's Lick Observatory and the W.M. Keck Observatory in Hawaii.

Max also was the founding director of Livermore's IGPP and in 2002 was named a fellow of the American Academy of Arts and Sciences for her astrophysics research. She is a 29-year Laboratory employee.

"It's a great honor to be selected for this distinction," Max said. "I'm happy to serve as a role model and contribute to the betterment of the county that I live in."

Raber, head of LLNL's Environmental Protection Department, is a national leader in research and development efforts in pollution prevention, waste management, environmental restoration and environmental



Ellen Raber



Claire Max

monitoring and analysis.

In her role as head of the Laboratory's Environmental Protection Agency, Raber has led the effort to accelerate the opening of LLNL's state-of-the-art Decontamination and Waste Treatment Facility that replaces an older World War II-era facility. Raber has

BRIEFLY

Call for LDRD proposals

On Feb. 14, Director Mike Anastasio issued the "Call for Proposals for the fiscal year '04 Laboratory Directed Research and Development Program — the Laboratory-Wide (LW) Competition." The deadline for submitting LW proposals is the close of business, Friday, March 21.

Duncan Maitland, chair of the FY04 LW Committee, will conduct two workshops to discuss the proposal submission and review process. The first will be on Friday, Feb. 28, from 11 a.m. to noon, and the second will be on Wednesday, March 5, from 11 a.m. to noon. Both will be held in the Bldg. 361 auditorium. Please plan to attend one of these sessions if you are interested in submitting a LW proposal.

Further details on the FY04 LW proposal submission and review process is available on the LDRD Web page <http://ldrd.llnl.gov/ProposalSubmittal/> or by contacting Duncan Maitland at 3-6697, maitland1@llnl.gov.

Verification of foreign visitors begins

The Safeguards & Security Department reminds all LLNL employees, particularly those who host foreign national visitors or assignees, of a new DOE/NSNSA documentation requirement that begins Monday. All foreign national visitors or assignees coming to LLNL will be required to show documentation of their lawful status at the Badge Office to have access to the site. This is in addition to the existing requirement to display a valid passport when obtaining a badge.

A Legal Permanent Resident of the U.S. is required to show a valid Permanent Residency Card (green card) or ADIT (Alien Documentation, Identification and Telecommunication) stamp. A non-immigrant foreign national must show passport

with a valid I-94. A non-immigrant foreign national with an I-94 valid for "duration of status" must produce the proper documentation of current status. Foreign nationals who are not in possession of appropriate documentation will be denied access to the site.

Hosts of foreign national visitors or assignees are required to acquire passport and visa information from their visitors/assignees before submitting a visit request to the S&S Foreign Interactions Office (FIO). Also, hosts should notify their visitors/assignees before their arrival at LLNL, to bring the required documentation with them when they come to the LLNL badge office. Those actions will help avoid unnecessary delays in gaining access to the site. To assist hosts in making sure your foreign visitor is aware of this new requirement, a Foreign National Identification Requirements Letter is available on the VTS Top Menu to print and send to your foreign visitor.

Questions regarding document requirements for foreign national visitors or assignees should be directed to the Compensation, Benefits and Work/Life Programs Department's Immigration Services Office, 3-9756 or immigration@llnl.gov, or the Safeguards & Security Foreign Interactions Office, Wendy Bishop, 3-9135 or bishop9@llnl.gov. More information on types of visas LLNL uses is available at the following URL: www.llnl.gov/llnl/02employment/fn/visas.htm

Guidelines for reservists called to duty

The DOE/NSNSA/Service Center has issued guidance to allow LLNL to maintain the L or Q access authorizations (clearances) for personnel called into active military duty. To retain an access authorization for an employee, directores are required to mail or fax a memo to Cindy McAneney (L-504, fax: 2-3199) with the following: employee full name; LLNL identification number; branch of military; active duty start date; active duty release date (if given).

The memo needs to be signed by the division leader or designee. Notification should be made as soon as the department becomes aware

personnel.

"Managing the national security laboratories for the last 60 years has been an honor and an awesome responsibility, and we will address any challenges that might detract from our ability to fulfill our obligations to the American people," Darling told the committee.

(The text of Senior Vice President Darling's testimony is available on the Web at <http://www.universityofcalifornia.edu/news/los-alamos/>)

Following the hearing, Sen. Dianne Feinstein said, "The University of California has taken important steps forward to improve the management of the Los Alamos National Laboratory, identifying problems, exposing abuses

been a strong proponent of making sure that LLNL operates the best environmental facilities to ensure protection of its workers and the community.

Raber's most recent accomplishment has been to lead the development of a decontaminating gel (known as L-gel) that is effective against chemical and biological warfare agents but then breaks down to environmentally acceptable byproducts. The patented gel is available for use in civilian facilities in response to a terrorist incident or in the case of an accidental release of a biological or chemical agent.

In her 22 years at Livermore, Raber has used her background in geochemistry to resolve a variety of environmental issues related to geothermal, underground coal gasification, the strategic petroleum reserve and nuclear waste management. She has also worked on technology to provide award-winning solutions for chemical weapons treaty verification and intelligence community applications.

of the request. Multiple names may be listed on the memo. The Safeguards and Security Department will be responsible for notifying the Department of Energy/National Nuclear Security Administration/Service Center of those individuals with active L or Q access authorizations who are called to active duty. Contact: Cindy McAneney, 3-1903.

Center for compensation claims

Representatives of the U.S. departments of Energy and Labor will be in the Bay Area next week to assist current and former nuclear weapons workers and their survivors who have questions or need help filing a claim under the Energy Employees Occupational Illness Program Compensation Act.

The Labor Department administers the program that provides a lump sum of up to \$150,000 and payment of future medical expenses to current and former Energy Department employees and contractor employees who suffer from radiogenic cancers, beryllium disease and chronic silicosis. Qualified survivors of covered employees, including adult children, also are eligible for benefits.

The Energy Department program helps contractor employees apply for state worker's compensation if it is determined by an independent physician's panel that the worker sustained an illness caused by exposure to a toxic substance at an Energy Department facility.

Workers who need help filling out claim forms can schedule appointments by calling toll-free 1-866-697-0841 or dropping in from: 8:30 a.m. to 6 p.m. Monday-Thursday at Four Points Hotel by Sheraton, 5115 Hopyard Road, Pleasanton; or 8:30 a.m. to 6 p.m. Wednesday and Thursday at Woodfin Suite Hotel, 5800 Shellmound St., Emeryville.

For more information call (510) 637-1818.

Bioterrorism represents great security threat

By Stephen Wampler

NEWSLINE STAFF WRITER

Bioterrorism, such as a widespread anthrax attack, represents a greater national security risk than the events of Sept. 11, 2001, a Department of Defense consultant told Lab employees last week.

Hijackings and even a terrorist nuclear weapon have more limiting factors than bioterrorism, noted Richard Danzig, who served as U.S. Secretary of the Navy from 1998 to 2001.

“We can shut down the airline system, but we can’t shut down the atmosphere.”

In his Feb. 13 presentation, “Bioterrorism: A Strategy for the U.S. Government,” Danzig spoke in the Nonproliferation, Arms Control and International Security’s (NAI) Homeland Security Seminar Series.

After Sept. 11, 2001, in which 19 hijackers killed about 2,800 Americans, the “hijackers were dead and their ability to do it again was severely inhibited,” he said.

The terrorists lost the element of surprise, civilian planes were grounded, close air patrols were started and airline security upgraded, Danzig added.

With a nuclear bomb, terrorists could cause enor-

mous damage to an American city, but that event could be done once, the former secretary of the Navy noted.

However, with bioterrorism, terrorists could attack one city one day and hit other cities in succeeding days, Danzig said.

“I call this problem reload; it’s too easy to reload biological weapons,” he said.

“Catastrophic biological terrorism has the potential to change the character of this society in fundamentally adverse ways.”

In his speech, Danzig outlined four biowarfare scenarios — aerosolized attacks of anthrax and smallpox, a botulinum drink attack and an agriculture attack.

As one example of the reality of these possible attacks, Danzig noted that Russia had produced tons of anthrax, Iraq had an acknowledged anthrax program, and, as the October 2001 anthrax mailings demonstrated, the pathogen is accessible to terrorists.

For smallpox, though it is supposed to have been eliminated apart from two designated samples, he observed that there were many opportunities for illicit samples to have been retained.

“Developing the capabilities to respond to these four scenarios will offer huge collateral benefits for

other threats and concerns. If you build up an antibiotic supply to deal with anthrax, the reality is that the antibiotic supply is available for other forms of bioterrorism,” Danzig continued.

Working toward solving these possible bioterrorist scenarios would permit action to be taken, allow progress to be measured, and would help establish a concept for operations, he said.

While many people have a common of understanding of missiles on ships, a topic Danzig dealt with as secretary of the Navy, this isn’t the case for bioterrorism.

In bioterrorism, an epidemiologist, a microbiologist and an emergency room doctor, among others, would all have very different perceptions and thus different views as to the best way to respond.

Beyond the four scenarios Danzig discussed, he recommended that a “Case 5 Committee” of academics, biotech leaders, and experts in infectious diseases, the Third World and intelligence be established to study evolving threats.

The work to strengthen the nation’s defense system against bioterrorism could also spell immense rewards for the public health sector, Danzig said.

DIRECTOR’S OFFICE

Continued from page 1

innovation and its practical realization is a Livermore hallmark, evinced time and again throughout the Lab’s history and programs.

In a sense, Livermore stakes its very existence on “pushing the envelope”; on innovating, taking risks and then delivering in the face of confounded skeptics. It began in the earliest days with breakthroughs in weapons design by the Lab that were thought impossible elsewhere. These innovations made deployment of megaton-class warheads on Polaris submarines a reality, and changed the course of our nation’s Cold War strategy.

The Polaris success, with its balance of seeking out challenge, pursuing out-of-the-box solutions and delivering results has set the tone for Livermore’s first 50 years. In developing nuclear weapons, Polaris-like innovation has been balanced by the historical discipline at LLNL of building the most conservative performance margins into our systems. And the growth of the Lab has been accompanied by a drumbeat of LLNL innovations that set the pace in national defense, energy research, strategic industries and basic science.

- For example:
- In the ’60s, taking advantage of unique computational and experimental capabilities developed for nuclear design and testing, scientists at the Lab launched new disciplines of astrophysics. Seminal papers were produced on the computer simulation of gravitational collapse and supernovae explosion. Sounding rockets, developed for the readiness program of the early ’60s, returned the first extra-solar X-ray spectra from space.
 - In the ’70s, the Lab gained preeminence in laser science and technology, and began the Inertial Confinement Fusion (ICF) Program. The spark of insight into the potential of lasers to create controlled fusion, an innovation that approaches scientific revolution, has been fanned into one of the pillars of the Lab and the national Stockpile Stewardship Program. The success of the ICF program, though — demonstrated, for example, in its bringing NIF to the Lab — came only after successfully executing a set of well-defined scientific

We value

–Passion for Mission

–Integrity and responsible stewardship of the public trust

–Simultaneous excellence in science & technology, operations, and business practices

–Balancing innovation with disciplined execution

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–Treating each other with dignity

–A high-quality, motivated workforce with diverse ideas, skills, and backgrounds

–Rewarding and recognizing performance

–Commitment to the collective success of the Laboratory

- demonstrations laid out in “Nova technical contracts” with the Department of Energy. The story of the NIF itself, of course, is a parable of disciplined engineering redeeming the risks taken to “push the envelope.”
- In the ’80s, Laboratory researchers introduced novel nuclear and non-nuclear defense concepts to protect the nation from ballistic missile attack. The X-ray laser concept played an essential role in stimulating the president’s Strategic Defense Initiative, and “Brilliant Pebbles” emerged as a leading candidate for an interceptor system. It was another “tectonic” shift in the strategic landscape engendered at LLNL, executed so successfully that the prototype interceptor and components still — 10 years later — define the state-of-the art for a range of missile defense missions
 - In the last decade of the 20th century, supercomputers sat on desktops, and many wondered whether Moore’s Law had run its course. From Livermore emerged an audacious proposal, now accepted by the worldwide computer chip-making industry, that pushing standard optical lithography into the shorter wavelength extreme ultraviolet regime was the path to more

powerful computers. Notwithstanding strong initial skepticism, and competition from giants like IBM that favored alternative approaches, the LLNL concept proved out. Drawing on its strengths in precision engineering and project management, the Lab and its partners successfully executed the original concept by delivering a working Engineering Test Stand two years ago.

The complete record of major LLNL innovations — I’ve highlighted above only very few — is a testament to a risk-taking, confident, intellectually vital institution. It’s a history of bold promises and courageous commitments, backed up by skilled, deliberate execution.

There’s something in the culture of the Lab that encourages and enables this balance. It’s connected to the enormous confidence Lab management has in the staff. Technical and scientific risk-taking has been encouraged and backed; second-guessing is minimal; failure is viewed as part of the price of long-term success. Ideas are the coin of the realm, and spirited competition is cultivated to bring forth the best of them.

But competition and risk taking tend to dissolve at the level where technical problems are engaged; executing the best solution becomes paramount. When solutions are pursued, multidisciplinary teaming — with its mix of complementary perspectives — helps ensure that the approach remains fluid and fresh, minimizing rigidity and tunnel vision. Finally, I think, it’s our commitment to the mission — to having a real impact on national problems — that keeps innovation firmly tied to execution.



CONSTRUCTION

Continued from page 1

informed of current and upcoming construction projects and their impact on the Lab community.

The accompanying map on page 5 of the LLNL site indicates the location of construction, demolition and special projects currently active or scheduled to become active within the next three months, and their expected impact on roads, parking lots and pathways. The map and accompanying information will be updated and published on a regular basis — approximately bimonthly — in order to make the general Lab

population aware of construction areas and related safety and convenience issues.

Other pertinent project information published with the map includes: easy reference by a map grid system, project start date, completion date, staging areas, impact statements, and names and phone numbers for those to contact for more information.

Suggestions for improving the map are welcome. Please call Christy Kato-Baxter in the Space and Site Planning Office at 2-6716. More project information, as well as other facility items of interest, also may be found on the Space and Site Planning Home Page at http://www-r.llnl.gov/plant_eng/siteplan/siteoff.html. (Click on “What’s New” in the pull-down menu.)

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